Name:

p1105: Factoring when $a = 1$ (v20)

Example: Factor $x^2 + 5x - 24$

Find two numbers whose product is -24 and whose sum is 5. Focus on finding factor pairs of -24. Eventually you consider 8 and -3 because $(8)(-3) = -24$. You verify this pair is correct because $(8) + (-3) = 5$. Thus, your answer:

$$(x + 8)(x - 3)$$

1. Factor $x^2 + x - 72$

2. Factor $x^2 - 11x + 24$

3. Factor $x^2 - 5x - 6$

4. Factor $x^2 + 8x + 12$

5. Factor $x^2 + 14x + 45$

6. Factor $x^2 + 6x - 27$

7. Factor $x^2 - 10x + 24$

8. Factor $x^2 + x - 42$

9. Factor $x^2 - 4x + 3$

10. Factor $x^2 + x - 20$

11. Factor $x^2 - 10x + 16$

12. Factor $x^2 - 8x + 7$

13. Factor $x^2 - x - 56$

14. Factor $x^2 + 2x - 24$

15. Factor $x^2 + 3x - 40$